

AMENDMENTS TO THE CLAIMS

Claims 1-9 (Cancelled)

10. (Currently Amended) The method as set forth in Claim 24 26, further comprising the steps of:

providing cigarette carton opening means, at a cigarette carton opening station interposed between said cigarette carton height determination station and said cigarette package tax stamp application station, for opening the particular one of the plurality of cigarette cartons so as to expose the cigarette packages contained within the particular one of the plurality of cigarette cartons in preparation for having tax stamps applied to the cigarette packages by said tax stamp applicator disposed at said cigarette package tax stamp application station; and

providing cigarette carton closing means, at a cigarette carton closing station disposed downstream of said cigarette package tax stamp application station, for closing

the particular one of the plurality of cigarette cartons after the cigarette packages of the particular one of the plurality of cigarette cartons have had tax stamps applied thereto by said tax stamp applicator disposed at said cigarette package tax stamp application station.

11. (Original) The method as set forth in Claim 10, further comprising the steps of:

automatically adjusting the elevational disposition of said cigarette carton opening means at said cigarette carton opening station in accordance with the height dimension data characteristic of the particular one of the plurality of different cigarette cartons disposed at said cigarette carton height determination station, as the particular one of the plurality of cigarette cartons is conveyed to said cigarette carton opening station by said conveyor such that said cigarette carton opening means are properly positioned with respect to the particular one of the plurality of different cigarette cartons being conveyed to said cigarette carton opening station by said conveyor so as to be capable of opening the particular one of the plurality of different

cigarette cartons when the particular one of the plurality of different cigarette cartons is disposed at said cigarette carton opening station regardless of the particular height dimension of the particular one of the plurality of different cigarette cartons; and

automatically adjusting the elevational disposition of said cigarette carton closing means at said cigarette carton closing station in accordance with the height dimension data characteristic of the particular one of the plurality of different cigarette cartons disposed at said cigarette carton height determination station as the particular one of the plurality of cigarette cartons is conveyed to said cigarette carton closing station by said conveyor such that said cigarette carton closing means are properly positioned with respect to the particular one of the plurality of different cigarette cartons being conveyed to said cigarette carton closing station by said conveyor so as to be capable of closing the particular one of the plurality of different cigarette cartons when the particular one of the plurality of different cigarette cartons is disposed at said cigarette carton closing station regardless of the particular height dimension of the particular one of the plurality of different cigarette cartons.

12. (Original) The method as set forth in Claim 11, further comprising the steps of:

providing each one of said cigarette carton opening means disposed at said cigarette carton opening station, said cigarette package tax stamp applicator disposed at said cigarette package tax stamp application station, and said cigarette carton closing means disposed at said cigarette carton closing station with first, second, and third servo drives; and

operatively connecting a programmable logic controller (PLC), into the memory of which has been entered the particular height dimension of each one of the plurality of different cigarette cartons having the different height dimensions thereof determined at said height determination station, to said first, second, and third servo drives of said cigarette carton opening means disposed at said cigarette carton opening station, said cigarette package tax stamp applicator disposed at said cigarette package tax stamp application station, and said cigarette carton closing means disposed at said cigarette carton closing station for controlling the automatic elevational adjustment of said cigarette carton opening means disposed at said cigarette carton opening station, said tax stamp applicator disposed at said

cigarette package tax stamp application station, and said cigarette carton closing means disposed at said cigarette carton closing station in accordance with the height dimension data characteristic of the particular one of the plurality of different cigarette cartons disposed at said cigarette carton height determination.

13. (Original) The method as set forth in Claim 12, further comprising the steps of:

equally spacing said cigarette carton height determination station, said cigarette carton opening station, said cigarette package tax stamp application station, and said cigarette carton closing station apart from each other by a first predetermined distance; and

providing said conveyor, for serially conveying the plurality of different cigarette cartons having the different height dimensions, with a plurality of pusher members equally spaced apart from each other by a second predetermined distance which is equal to said first predetermined distance comprising the spacing apart of said cigarette carton height determination, said cigarette carton opening, said cigarette

package tax stamp application, and said cigarette carton closing stations such that when a first one of said plurality of pusher members has conveyed a first one of the plurality of different cigarette cartons, having the different height dimensions, to said cigarette carton closing station, a second one of said plurality of pusher members has conveyed a second one of the plurality of different cigarette cartons, having the different height dimensions, to said cigarette package tax stamp application station, a third one of said plurality of pusher members has conveyed a third one of the plurality of different cigarette cartons, having the different height dimensions, to said cigarette carton opening station, and a fourth one of said plurality of pusher members is disposed at said cigarette carton height determination station in preparation for conveying a fourth one of the plurality of different cigarette cartons, having the different height dimensions, to said cigarette carton opening station.

14. (Original) The method as set forth in Claim 13, further comprising the step of:

operatively connecting said conveyor to said pro-

grammable logic controller (PLC) such that said programmable logic controller (PLC) can control the movement of said conveyor through means of a predetermined distance which is equal to said first and second predetermined spaced distances defined between said cigarette carton height determination station, said cigarette carton opening station, said cigarette package tax stamp application station, and said cigarette carton closing station, and defined between said conveyor pusher members, respectively.

15. (Currently Amended) The method as set forth in Claim 24 26, further comprising the steps of:

providing a paper roll holder for holding a roll of tax stamp paper upon which a predetermined row and column array of tax stamps is disposed;

providing a plurality of longitudinally spaced stamping shoes upon said tax stamp applicator disposed at said cigarette package tax stamp application station for engaging predeterminedly spaced ones of the tax stamps disposed in the predetermined array of rows and columns upon the roll of tax stamp paper; and

linearly longitudinally moving said tax stamp applicator, with respect to said cigarette package tax stamp application station and in predetermined incremental steps, such that said longitudinally spaced stamping shoes can engage predetermined sets of the predeterminedly spaced tax stamps each time said tax stamp applicator is incrementally moved one step whereby a predetermined number of the plurality of different cigarette cartons can have tax stamps from the rows of tax stamps disposed upon the tax stamp paper applied to their cigarette packages before the tax stamp paper must be advanced so as to present new rows of tax stamps of the row and column array of tax stamps to said stamping shoes of said tax stamp applicator.

Claim 16 (Cancelled)

17. (Previously Amended) The method set forth in Claim ~~25~~ 28, further comprising the steps of:

providing a programmable logic controller (PLC)

having a data memory;

detecting the presence of each one of the plurality of different cigarette cartons at said cigarette carton height determination station by a first sensor disposed at said cigarette carton height determination station;

transmitting a signal from said first sensor to said programmable logic controller (PLC) indicating the presence of one of the plurality of different cigarette cartons at said cigarette carton height determination station;

determining the height dimension of each one of the plurality of different cigarette cartons present at said cigarette carton height determination station, in response to said signal transmitted from said first sensor to said programmable logic controller (PLC), by a second sensor disposed at said cigarette carton height determination station;

transmitting the height dimension data characteristic of each one of the plurality of different cigarette cartons present at said cigarette carton height determination station from said second sensor into said data memory of said programmable logic controller (PLC);

operatively connecting said programmable logic controller (PLC) to said cigarette carton opening means, said tax stamp application means, and said cigarette carton clos-

ing means disposed at said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations; and

automatically adjusting the elevational disposition of said cigarette carton opening means, said tax stamp application means, and said cigarette carton closing means, disposed at said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, in accordance with height dimension data characteristic of each one of the plurality of different cigarette cartons present at each one of said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, as stored within said data memory of said programmable logic controller (PLC) and as transmitted to said cigarette carton opening means, said tax stamp application means, and said cigarette carton closing means, disposed at said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, whereby said cigarette carton opening means, said tax stamp application means, and said cigarette carton closing means will be properly positioned with respect to each one of the plurality of different cigarette cartons, having the different height dimensions, when each one of the

plurality of different cigarette cartons, having the different height dimensions, is disposed at said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations.

18. (Currently Amended) The method as set forth in Claim ~~25~~ 28, further comprising the steps of:

engaging side portions of each one of the plurality of cigarette cartons disposed at said cigarette carton opening station and compressing said side portions of each one of the plurality of cigarette cartons inwardly toward each other so as to cause upper flap members of each one of the plurality of cigarette cartons to be domed upwardly; and

inserting a plow member beneath the domed upper flap members so as to cause the upper flap members of each one of the plurality of cigarette cartons to be unfolded and extended outwardly with respect to each other.

19. (Currently Amended) The method as set forth in Claim ~~25~~

28, further comprising the steps of:

providing a roll of tax stamp paper, upon which a predetermined row and column array of tax stamps is disposed, at said cigarette package tax stamp application station;

providing a stamping iron, having a plurality of longitudinally spaced stamping shoes, for engaging predeterminedly spaced ones of the tax stamps disposed within the predetermined array of rows and columns, upon the roll of tax stamp paper; and

moving said stamping iron in a linear, longitudinal mode, with respect to said cigarette package tax stamp application station and in predetermined incremental steps, such that said longitudinally spaced stamping shoes can engage predetermined sets of the predeterminedly spaced tax stamps each time said stamping iron is incrementally moved one step whereby a predetermined number of the plurality of different cigarette cartons can have tax stamps, from the rows of tax stamps disposed upon the tax stamp paper, applied to their cigarette packages before the tax stamp paper must be advanced so as to present new rows of tax stamps of the row and column array of tax stamps to said stamping shoes of said stamping iron.

20. (Previously Inserted) The method as set forth in Claim 18, further comprising the steps of:

providing a glue pot and a glue applicator wheel at said cigarette carton closing station for applying glue to an undersurface portion of one of the upper carton flap members, disposed at the unfolded and outwardly extending positions, of each one of the plurality of cigarette cartons disposed at said cigarette carton closing station;

providing a pair of flap closers for folding the upper carton flap members from their unfolded and outwardly extended positions to folded and inwardly extending positions whereby the glue, disposed upon the undersurface portion of one of the upper carton flap members is now disposed upon an upper surface portion of the one of the upper carton flap members, such that the upper carton flap members are disposed in an overlapped mode with respect to each other; and

providing a pressure plate and roller assembly for retaining the carton flap members in the folded, overlapped mode while the glue applied to the one of the upper carton flap members sets.

21. (Currently Amended) The method as set forth in Claim ~~25~~
28, further comprising the steps of:

equally spacing said cigarette carton height determination station, said cigarette carton opening station, said cigarette package tax stamp application station, and said cigarette carton closing station apart from each other by means of a first predetermined distance; and

providing a plurality of pusher members upon said conveyor means so as to be equally spaced apart from each other by means of a second predetermined distance which is equal to said first predetermined distance comprising the spacing apart of said cigarette carton height determination, said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, such that when a first one of said plurality of pusher members has conveyed a first one of the plurality of different cigarette cartons, having different height dimensions, to said cigarette carton closing station, a second one of said plurality of pusher members has conveyed a second one of the plurality of different cigarette cartons, having different height dimensions, to said cigarette package tax stamp application station, a third one of said plurality of pusher members has conveyed a third one of the plurality of different

cigarette cartons, having different height dimensions, to said cigarette carton opening station, and a fourth one of said plurality of pusher members is disposed at said cigarette carton height determination station in preparation for conveying a fourth one of the plurality of different cigarette cartons, having different height dimensions, to said cigarette carton opening station.

Claims 22-25 (Cancelled)

26. (New) A method of applying tax stamps onto cigarette packages disposed within different cigarette cartons having different height dimensions, comprising the steps of:

serially conveying a plurality of cigarette cartons having different height dimensions;

movably disposing a contact member, disposed at a cigarette carton height determination station, into contact engagement with an upper surface portion of a particular one

of the plurality of different cigarette cartons having the different height dimensions;

using a sensor, disposed at said cigarette carton height determination station, to sense the distance of said contact member, disposed in contact with the upper surface portion of the particular one of the plurality of different cigarette cartons having the different height dimensions and disposed at said cigarette carton height determination station, from said sensor and to therefore determine the particular height dimension of the one of the plurality of different cigarette cartons, having the different height dimensions, disposed at said cigarette carton height determination station;

generating data which is indicative of the particular height dimension of the particular one of the plurality of different cigarette cartons, having the different height dimensions, when the particular one of the plurality of different cigarette cartons is disposed at said cigarette carton height determination station;

providing a tax stamp applicator at a cigarette package tax stamp application station; and

automatically adjusting the elevational disposition of said tax stamp applicator at said cigarette package tax

stamp application station, in accordance with said height dimension data characteristic of the particular one of the plurality of different cigarette cartons, conveyed to said cigarette package tax stamp application station, as determined by said contact member and said sensor disposed at said cigarette carton height determination station, as each one of the plurality of different cigarette cartons, having the different height dimensions, is respectively disposed at said cigarette package tax stamp application station, such that said tax stamp applicator will be properly positioned with respect to the particular one of the plurality of different cigarette cartons, having the different height dimensions, which is being conveyed to said cigarette package tax stamp application station so as to be capable of properly applying tax stamps to the individual cigarette packages of the particular one of the plurality of different cigarette cartons, having the different height dimensions, when the particular one of the plurality of different cigarette cartons, having the different height dimensions, is disposed at said cigarette package tax stamp application station regardless of the particular height dimension of any one of the plurality of different cigarette cartons having the different height dimensions.

27. (New) The method as set forth in Claim 26, further comprising the step of:

using an ultrasonic sensor as the sensor to sense the distance of said contact member from said sensor and to determine the particular height dimension of the one of the plurality of different cigarette cartons disposed at said cigarette carton height determination station.

28. (New) A method of applying tax stamps onto cigarette packages disposed within different cigarette cartons having different height dimensions, comprising the steps of:

serially conveying a plurality of different cigarette cartons, having different height dimensions, toward a cigarette carton height determination station by conveyor means;

movably disposing a contact member, disposed at said cigarette carton height determination station, into contact engagement with an upper surface portion of a particular one of the plurality of different cigarette cartons having the different height dimensions;

using a sensor, disposed at said cigarette carton

height determination station, to sense the distance of said contact member, disposed in contact with the upper surface portion of the particular one of the plurality of different cigarette cartons having the different height dimensions and disposed at said cigarette carton height determination station, from said sensor and to therefore determine the particular height dimension of the one of the plurality of different cigarette cartons, having the different height dimensions, which has been conveyed to said cigarette carton height determination station by said conveyor means;

generating data which is indicative of the particular height dimension of a particular one of the plurality of different cigarette cartons, having the different height dimensions, when the particular one of the plurality of different cigarette cartons is disposed at said cigarette carton height determination station;

providing tax stamp application means, at a cigarette package tax stamp application station, for applying tax stamps to individual cigarette packages disposed within each one of the plurality of cigarette cartons, having the different height dimensions, as each cigarette carton is disposed at said cigarette package tax stamp application station;

providing cigarette carton opening means, at a ci-

garette carton opening station interposed between said cigarette carton height determination station and said cigarette package tax stamp application station, for opening each one of the plurality of different cigarette cartons, having the different height dimensions, so as to expose the cigarette packages contained within each one of the plurality of different cigarette cartons, having the different height dimension, in preparation for having tax stamps applied to the cigarette packages disposed within each opened cigarette carton by said tax stamp application means disposed at said cigarette package tax stamp application station;

providing cigarette carton closing means, at a cigarette carton closing station disposed downstream of said cigarette package tax stamp application station, for closing each one of the plurality of different cigarette cartons, having the different height dimensions, after the cigarette packages of each one of the plurality of cigarette cartons, having the different height dimensions, have had tax stamps applied thereto by said tax stamp application means disposed at said cigarette package tax stamp application station; and

automatically adjusting the elevational disposition of said cigarette carton opening means disposed at said cigarette carton opening station, the elevational disposition of

said tax stamp application means disposed at said cigarette package tax stamp application station, and the elevational disposition of said cigarette carton closing means disposed at said cigarette carton closing station, in accordance with said height dimension data respectively characteristic of the particular one of the plurality of different cigarette cartons, having the different height dimensions, as determined by said contact member and said sensor disposed at said cigarette carton height determination station, as each one of the plurality of different cigarette cartons, having the different height dimensions, is respectively disposed at each one of said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, such that said cigarette carton opening means, said tax stamp application means, and said cigarette carton closing means will be properly positioned with respect to each one of the plurality of different cigarette cartons, having the different height dimensions, when a particular one of the plurality of different cigarette cartons, having the different height dimensions, is being respectively conveyed to each one of said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations, whereby said cigarette carton opening means, said tax

stamp application means, and said cigarette carton closing means can properly engage each one of the plurality of cigarette cartons, having the different height dimensions, as each one of the plurality of different cigarette cartons, having the different height dimensions, is respectively disposed at said cigarette carton opening, said cigarette package tax stamp application, and said cigarette carton closing stations such that said cigarette carton opening means can properly open each one of the plurality of different cigarette cartons, having the different height dimensions, at said cigarette carton opening station, said tax stamp application means can properly apply tax stamps to the cigarette packages disposed within each one of the different cigarette cartons, having the different height dimensions, at said cigarette package tax stamp application station, and said cigarette carton closing means can properly close each one of the plurality of different cigarette cartons, having the different height dimensions, disposed at said cigarette carton closing station.

29. (New) The method as set forth in Claim 28, further com-

prising the step of:

using an ultrasonic sensor as the sensor to sense the distance of said contact member from said sensor and to determine the particular height dimension of the one of the plurality of different cigarette cartons disposed at said cigarette carton height determination station.